



Empowering the buy-side with market data and FIX

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While the Financial Information Exchange (FIX) Protocol has standardised execution message passing between systems or platforms, market data messaging protocols have, for the most part, remained vendor-specific making the integration of market data with execution capabilities on the same platform difficult.

Sell-side brokers receive market data feeds either through a direct feed or as part of a 'black box' product. Although the data may be keyed on certain data fields (SEDOL, CUSIP, ISIN, etc.) each vendor distributes data in its own format, which needs to be massaged to fit into its systems. Sell-side broker-dealers have developed proprietary systems to integrate market data and execution-related transactions from clients and other brokers. FIX has been employed to standardise the transaction messages passed between clients and brokers.

Although FIX is primarily used by sell-side brokers to communicate equity market transaction data, it was originally developed so the sell-side could deliver some market data, such as indications of interest, to the buy-side. The emergence of Alternative Trading Systems and Electronic Communications Networks (ECNs) as a trading tool accessible to all traders has increased the use of FIX on the buy-side.

The buy-side was introduced to the direct access business when the sell-side started offering FIX connectivity at no cost. This encouraged the buy-side to send orders directly to their broker. FIX connectivity helped buy-side clients recognise the benefits of electronic routing/trading. ECNs used FIX to develop desktop applications and advanced trading technologies to buy-side clients. These

Buy-side traders use a variety of tools, ranging from a simple spreadsheet to a sophisticated order management system (OMS), to track their orders and executions. Most traders would like an integrated platform from which they can conduct pre and working trade analysis and route orders to a broker or exchange for execution.

applications provided the buy-side with several avenues of liquidity from which to seek better execution and manage their workflow.

FIX was designed with the flexibility to use custom tags, thus enabling the development of tools-based trading. Each vendor can register a custom tag, which can be used to create new trading tools and smart routing logic. For example, through the use of custom tags, traders can direct the ECNs trading algorithms to only display a portion of the order to the market, holding the rest in reserve; peg to the market, use discretion or even define a displayed share amount that would 'trigger' an execution.

ECNs have used FIX custom tags to aid in the development of more sophisticated trading algorithms. In the US, Europe and Japan, equity exchanges are competing as trading venues – the result is a fragmented marketplace where a stock's liquidity is spread over several exchanges. In the US, this is the case in most OTC stocks, where liquidity is spread across NASDAQ's SuperMontage, the Archipelago Exchange and other ECNs. On any given day, you can now trade the stock of telecommunications equipment maker Nokia Oyj on five different exchanges with 20-40% of the volume being fragmented away from the primary Finnish exchange. In Japan, stock liquidity is fragmented between the Tokyo and Osaka Exchanges. Through the use of FIX, ECNs are offering clients improved transparency by combining multiple market quotes into a single montage, and sophisticated linkages and fast execution capabilities so that traders can access the multiple points of liquidity at the same time. The development of advanced trading technologies has enabled the buy-side to take greater control of their orders

and seek lower transaction costs and better average prices on their executions.

Most buy-side orders are spread across multiple platforms. The orders reside in some sort of system – a spreadsheet or a sophisticated OMS. Market data and electronic trading systems are typically on another platform and in most cases not integrated. The challenge for the buy-side is integrating market data and execution capabilities on the same front-end. For the most part, the buy-side hasn't had the resources to develop proprietary systems. This is more the case in European and Asian buy-side clients. Third-party vendors, however, are beginning to develop products that fill the gap. These products have centred on integrating spreadsheet applications with FIX in order to help desks manage and execute their orders. Market data feeds enrich the spreadsheet and FIX enables orders to be routed for execution. Some vendors enable traders to combine real-time market data with FIX for event-driven trading – a market data condition or relationship will initiate a FIX execution message – route an order to a broker or directly to the market. For many buy-side clients with limited resources, these platforms provide a desirable solution – although the algorithm typically cannot be changed, there is minimal information technology support/cost. A major drawback, however, is that many of these front-ends are not completely integrated and many traders are forced then at the end of the day to enter the execution information manually back into the spreadsheet or OMS.

In the US, more and more buy-side clients have decided to invest in a FIX engine and use a third-party FIX routing network. Although market data is not integrated in this solution, it does provide the buy-side with efficiencies of straight-through processing and reduced settlement errors. These clients are connecting their OMS with a one-way or two-way connection. A one-way connection enables the executions that result from manually-entered manually entered orders into an ECN's front-end application (or orders placed verbally with a broker) to seamlessly flow back into the OMS in real time. A hybrid one-way connection is emerging where buy-side clients will send a spreadsheet of orders to the sell-side broker or upload the spreadsheet into platform. The broker processes the file and all executions are sent back either via FIX or electronically for batch processing – thus avoiding double entry.

A two-way FIX connection enables the trader to enter orders on the OMS and have executions flow back to the OMS in real time. Because the OMS typically only supports basic limit and market orders, a hybrid two-way 'staging' connection has emerged that enables traders to access all the tools the ECN provides and still have the orders flow back into the OMS in real time. With a 'staging' connection, traders will push an order from the OMS to a 'staging' area on the ECN. The staging area holds the order in the system until the trader applies his trading strategy to the order and releases it to the market.

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FIX one and two-way connections provide the buy-side with execution linkages, but do not address the integration issue. The FIX Protocol, however, has taken proactive steps to address integration issues. Joint vendors with SWIFT and XML protocol will allow transactional data to flow easily into systems. The ultimate objective is to find a way for all protocols to work together to make the integration of systems easy enough that the user is empowered to maximise their system strength for profit and process improvement.

The relationship of back-office processing and front-office trading is ultimately meeting and requiring the integration of systems. The buy-side wants to be fully empowered with the same trading tools and workflow that many on the sell-side use. This requires a system with a low cost, easy to control and customisable to each firm's workflow applying market data and transactional data on their workstation.

Although there is no single solution for the buy-side that covers market data feeds, order management, and order routing, FIX can be an excellent communication mechanism between order management systems and broker-dealers. The standardised format provides all FIX users with uniformity, meaning that for the most part, any user can read the FIX file of any other user. Traders also get flexibility from FIX's user-customised fields. **FIX**